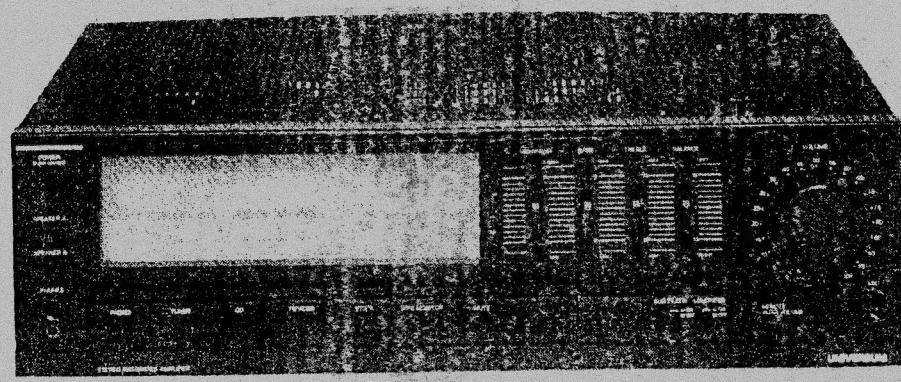
Quelle Technischer Kundendienst

065.6801



BESTELL-NR.	0656801
GERAETEBEZEICHNUNG	UNIV.-VERSTAERKER
WARENGATTUNG	653
AUSFUEHRUNGS-NR.	001
GERAETEBESCHREIBUNG	
PRIVILEG	V 4695
LIEFERANTEN-NR.	205476
PREIS	549.00
KATALOG	894
GARANTIEZEIT	6
KD-SEKTOR	R
HEIM/BRINGE	WERKSTATT
BETREUUNG	EIGEN
KOSTENTRAEGER	EIGEN
REPARATURFAEHIG	JA

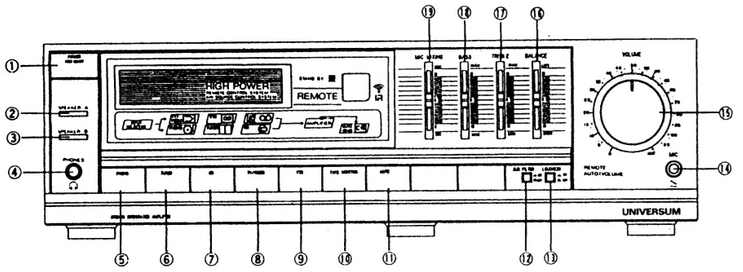
6700-451/1184

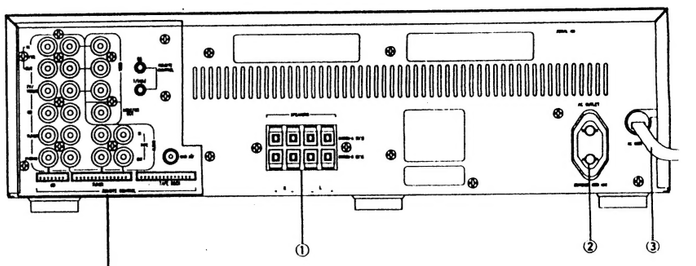
Großversandhaus Quelle, Gustav Schickedanz KG.
Kundendienstzentralleitung Ulmenstraße 52 **Nürnberg**

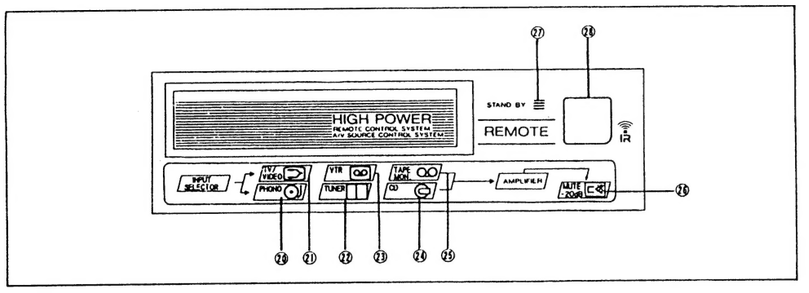
Nachdruck nicht gestattet
Änderungen vorbehalten

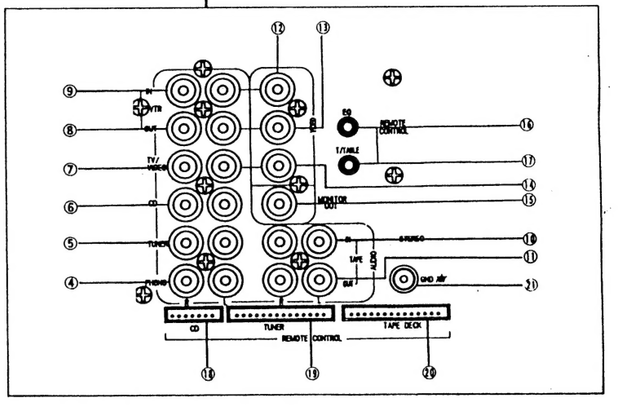
H/W 89/90 Jan. 90 18 S.

Bei allen Reparaturen sind die gültigen Sicherheitsvorschriften zu beachten!









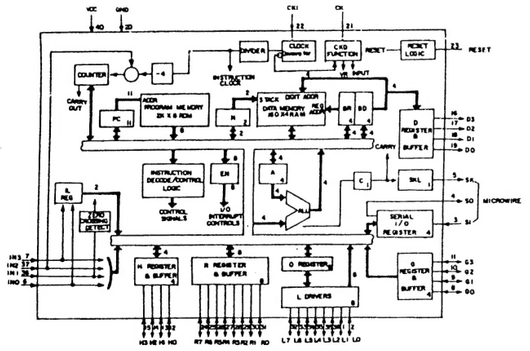
1. POWER SWITCH
2. A SPEAKER SELECTOR SIWTCH
3. B SPEAKER SELECTOR SIWTCH
4. HEADPHONE JACK
5. PHONO BUTTON
6. TUNER BUTTON
7. CD BUTTON
8. TV/VIDEO BUTTON
9. VTR BUTTON
10. TAPE BUTTON
11. MUTE BUTTON
12. SUB-SONIC FILTER SIWTCH
13. LOUDNESS SIWTCH
14. MIC JACK
15. VOLUME
16. BALANCE
17. TREBLE
18. BASS
19. MIC MIXING VOLUME
20. PHONO INDICATOR
21. TV/VIDEO INDICATOR
22. TUNER INDICATOR
23. VTR INDICATOR
24. CD INDICATOR
25. TAPE INDICATOR
26. MUTE INDICATOR
27. STAND-BY INDICATOR
28. REMOTE CONTROL SENSOR

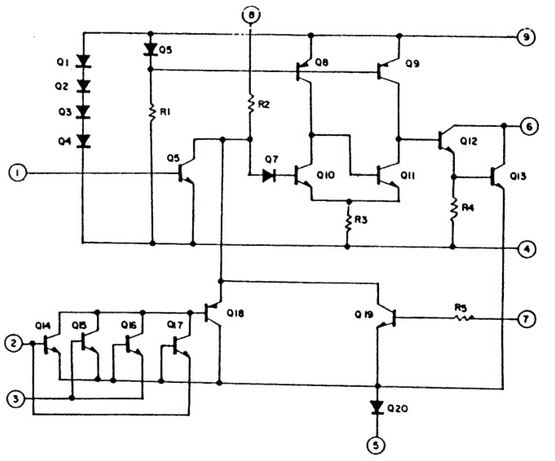
1. SPEAKER TERMINAL
2. AC OUTLET
3. AC POWER CORD
4. PHONO INPUT JACK
5. TUNER INPUT JACK
6. CD INPUT JACK
7. TV/VIDEO INPUT JACK
8. VTR OUTPUT JACK
9. VTR INPUT JACK
10. TAPE INPUT JACK
11. TAPE OUTPUT JACK
12. VTR VIDEO INPUT JACK
13. VTR VIDEO OUTPUT JACK
14. TV/VIDEO VIDEO OUTPUT JACK
15. MONITOR OUTPUT JACK
16. EQ REMOCON JACK
17. T/TABLE REMOCON JACK
18. CD REMOCON JACK
19. TUNER REMOCON JACK
20. TAPE DECK REMOCON JACK
21. GROUND TO TURN TABLE

1) IC CONFIGURATIONS

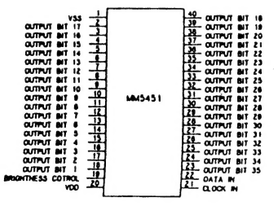
TA7317P

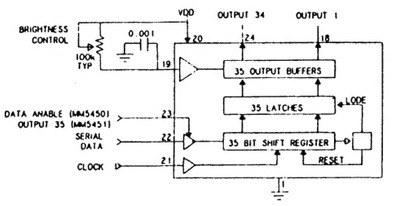
COP440-WZF/N (IC-MICOM)





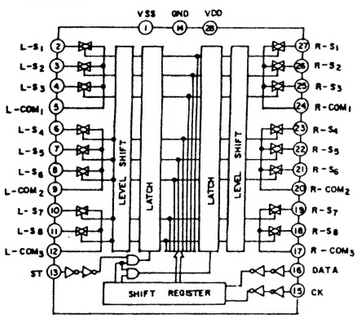
MM5451N (REMOCON DRIVER)



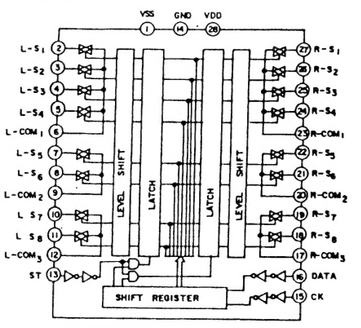


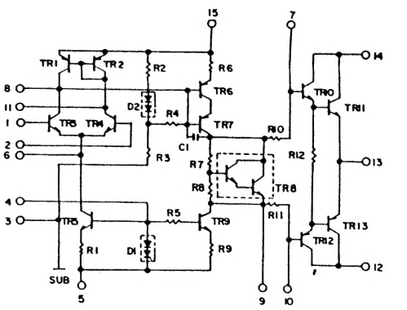
STK4044XI

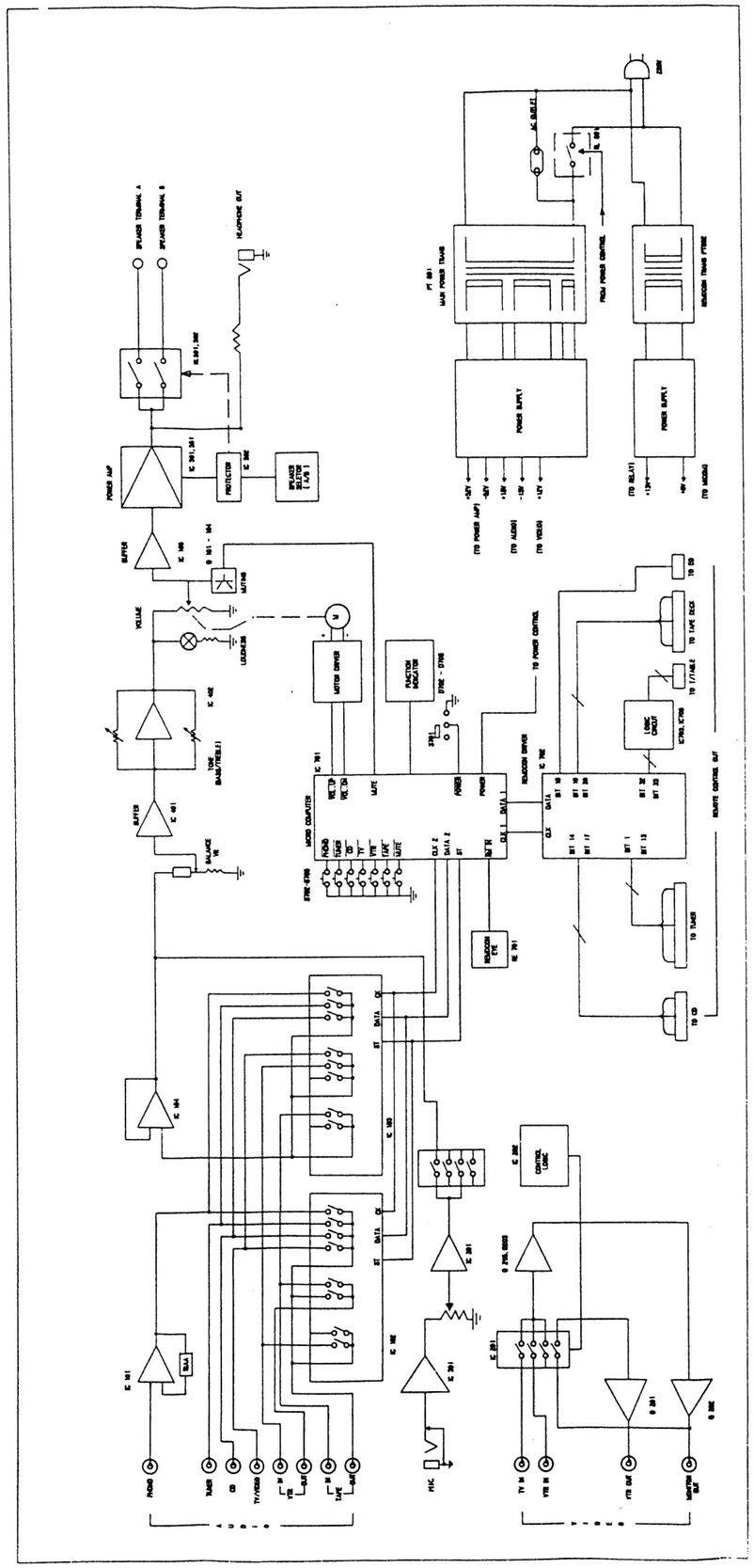
TC9163N



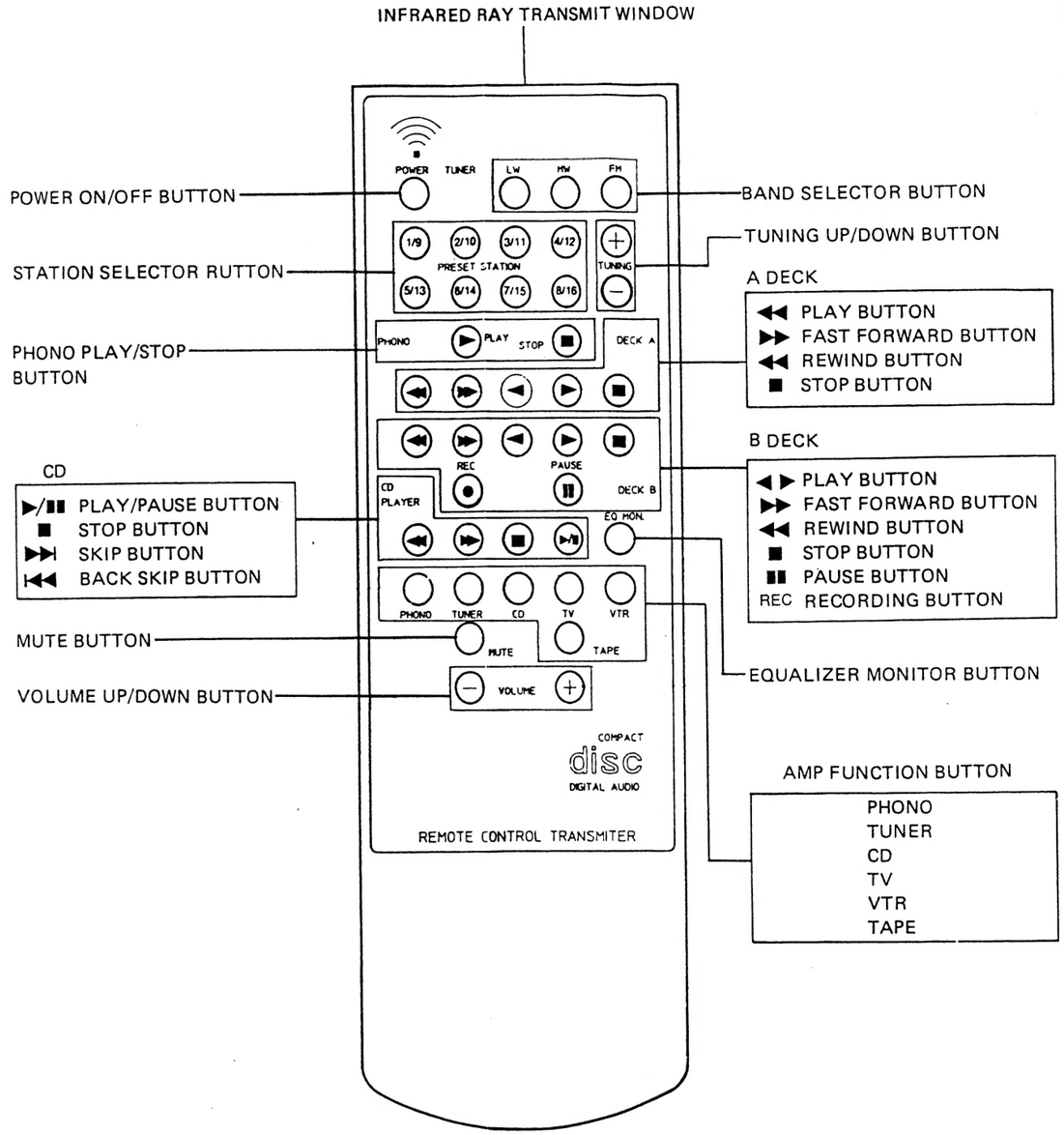
TC9164N



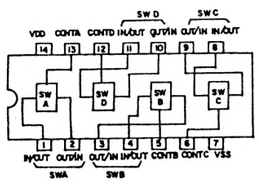




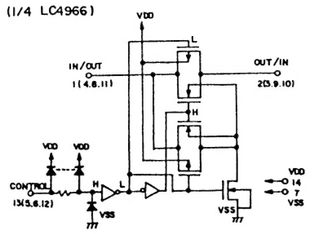
REMOTE CONTROL



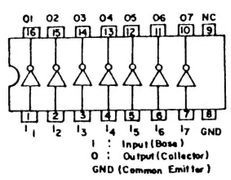
LC4966

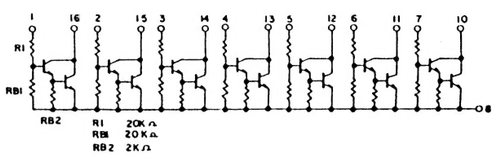


(1/4 LC4966)

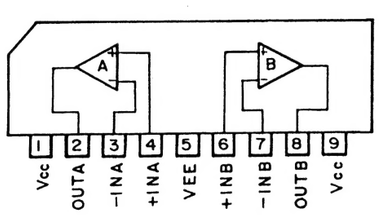


UPA81C

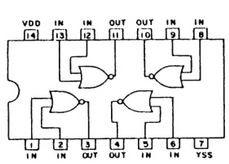




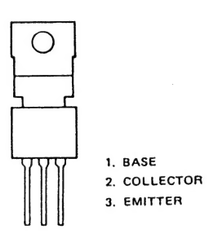
NJM2068 SD



LC4001B

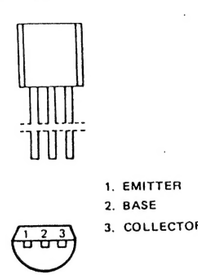


KSC 1096-Y



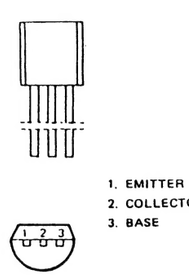
1. BASE
2. COLLECTOR
3. EMITTER

KSA 733-Y/KSC945-Y
/KSC 1008-Y



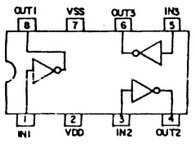
1. EMITTER
2. BASE
3. COLLECTOR

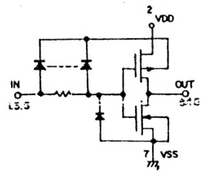
2SC 2458-Y



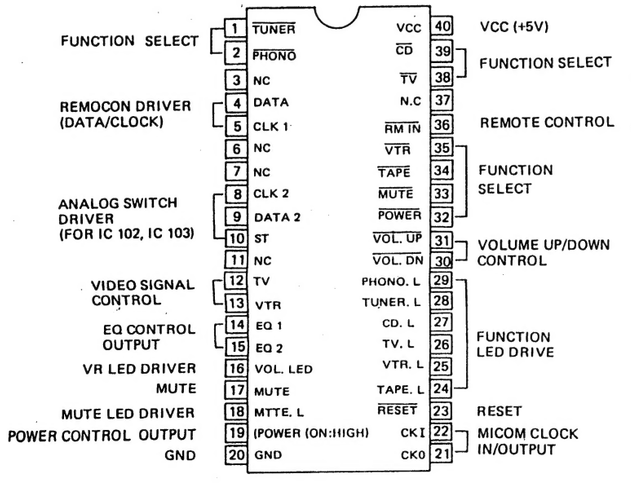
1. EMITTER
2. COLLECTOR
3. BASE

LC4969





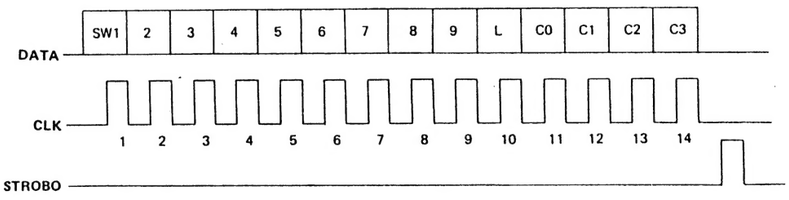
- COP 440-WZF/N (single-chip N-CHANNEL Microcontrollers)
  COP 440-WZF/N is 2K x 8 ROM AND EMPLOY 160 x 4 RAM.



- PIN is "H", if Function is selected (PIN 12, 13, 24, 25, 26, 27, 28, 29)
- PIN28: FOR TUNER LED DRIVE (OUTPUT)
  PIN29: FOR PHONO LED DRIVE (OUTPUT)

- ANALOG SWITCH IC (IC 102/103, TC9164N/9163N)

(1) TIME CHART



- TC9164N's and TC9163N's data are consist of 14 Bits.
  First 8 Bits (1 – 8) match with analog SW's (1 – 8) and port is "H" in ON codition.
  Next 2 Bits (9 – 10) are for L/R-CH selection.
  Last 4 Bits (11 – 14) are code Bits for selecting chip.

	C0	C1	C2	C3
TC9163N	H	L	L	L
TC9164N	L	H	L	L

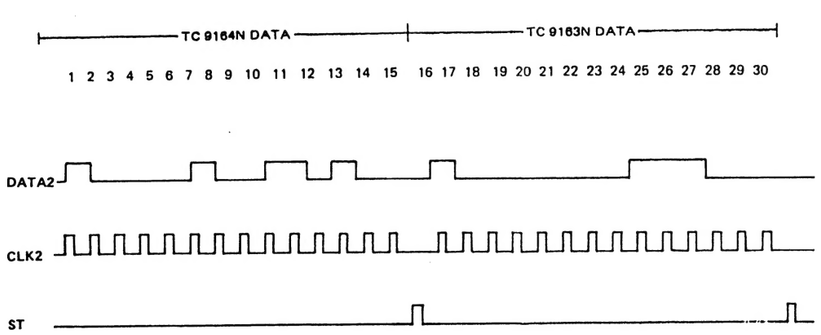
(2) IC 102 (TC9164N) DATA

DATE / FUNCTION	S1	S2	S3	S4	S5	S6	S7	S8	R	L	C0	C1	C1	C3
	D0	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13
PHONO	H	L	L	L	L	H	L	L	H	H	L	H	L	L
TUNER	L	H	L	L	L	H	L	L	H	H	L	H	L	L
CD	L	L	H	L	L	H	L	L	H	H	L	H	L	L
TV/VTR	L	L	L	H	L	H	L	L	H	H	L	H	L	L
VTR	L	L	L	L	L	L	L	H	H	H	L	H	L	L
PHONO + TAPE	H	L	L	L	L	H	L	L	H	H	L	H	L	L
TUNER + TAPE	L	H	L	L	L	H	L	L	H	H	L	H	I	I
CD + TAPE	L	L	H	L	L	H	L	L	H	H	L	H	L	L
TV + TAPE	L	L	L	H	L	H	L	L	H	H	L	H	L	L
VTR + TAPE	L	L	L	L	L	L	L	H	H	H	L	H	L	L

(3) IC 103 (TC9163N) DATA

DATA / FUNCTION	S1	S2	S3	S4	S5	D6	S7	S8	R	L	C0	C1	C2	C3
	D0	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13
PHONO	H	L	L	L	L	L	L	L	H	H	H	L	L	L
TUNER	L	H	L	L	L	L	L	L	H	H	H	L	L	L
CD	L	L	H	L	L	L	L	L	H	H	H	L	L	L
TV/VTR	L	L	L	H	L	L	L	L	H	H	H	L	L	L
VTR	L	L	L	L	H	L	L	L	H	H	H	L	L	L
PHONO + TAPE	L	L	L	L	L	L	H	L	H	H	H	L	L	L
TUNER + TAPE	L	L	L	L	L	L	H	L	H	H	H	L	L	L
CD + TAPE	L	L	L	L	L	L	H	L	H	H	H	L	L	L
TV + TAPE	L	L	L	L	L	L	H	L	H	H	H	L	L	L
VTR + TAPE	L	L	L	L	L	L	H	L	H	H	H	L	L	L

(4) MICOM IC 701's TIME CHART



This timing chart shows MICOM IC's out put (DATA2, CLK2, ST) in CASE of selecting PHONO function.

NJM2068SD (IC101, 104, 105, 301, 401) NJM4560S (IC402)

IC \ PIN	1	2	3	4	5	6	7	8	9
IC101	15.1	0	0	0	−15.2	0	0	0	15.1
IC104	15.1	0	0	0	−15.2	0	0	0	15.1
IC105	15.1	0	0	0	−15.2	0	0	0	15.1
IC301	15.1	0	0	0	−15.2	0	0	0	15.1
IC401	15.1	0	0	0	−15.2	0	0	0	15.1
IC402	15.1	0	0	0	−15.2	0	0	0	15.1

TC9164N(IC102) TC9163N(IC103)

IC \ PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14
IC102	−15.2	0	0	0	0	0	0	0	0	0	0	0	0	0
IC103	−15.2	0	0	0	0	0	0	0	0	0	0	0	0	0
IC \ PIN	15	16	17	18	19	20	21	22	23	24	25	26	27	28
IC102	0	0	0	0	0	0	0	0	0	0	0	0	0	15.1
IC103	0	0	0	0	0	0	0	0	0	0	0	0	0	15.1

LC4966(IC 201)

IC \ PIN	1	2	3	4	4	6	7	8	9	10	11	12	13	14
IC201	6	7.5	8.4	8.4	11.8	0.5	0	8.9	7.5	7.5	6	0.5	0.5	12
IC302	0	0.2	0.2	0	−15.1	−15.1	−15.1	0	0	0	0	−15.1	−15.1	15.1

μPA81C (IC202)

IC \ PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
IC202	0	4.3	4.3	4.3	4.3	0	0	0	0	7.5	7.5	0.5	0.5	0.5	0.5	0

LC4001B (IC703)

IC \ PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14
IC703	0	0	4.6	0	5.0	0	0	5.0	4.8	5.0	0	5.0	0	0

LC4969(IC706)

IC \ PIN	1	2	3	4	5	6	7	8
IC706	0.1	5.0	0	5.0	4.0	0	0	5.0

STK4044 X 1 (IC501, IC551)

IC \ PIN	1	2	3	4	5	6	7	8	9	10
IC 501	−0.2	−0.2	0	−54.0	−54.0	−0.8	1.2	54.5	−1.2	−1.2
IC 551	−0.2	−0.2	0	−54.0	−54.0	−0.8	1.2	54.5	−1.2	−1.2
IC \ PIN	11	12	13	14	15					
IC 501	55.0	−56.5	0	56.7	55.5					
IC 551	55.0	−56.5	0	56.7	55.5					

TA7317P(IC502)

IC \ PIN	1	2	3	4	5	6	7	8	9
IC502	-0.7	0	0	0	−0.8	0	0	1.4	3.1

COP440-WZF/N (IC701)

IC \ PIN	1	2	3	4	5	6	7	8	9	10
IC 701	5.0	5.0	5.0	0	0	5.0	5.0	0	0	0
IC \ PIN	11	12	13	14	15	16	17	18	19	20
IC 701	0	0	0	0	0	0	0	0	4.8	0
IC \ PIN	21	22	23	24	25	26	27	28	29	30
IC 701	1.3	1.5	5.0	0	0	0	0	0	2.3	2.3
IC \ PIN	31	32	33	34	35	36	37	38	39	40
IC 701	2.3	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

MM5451N (IC702)

IC \ PIN	1	2	3	4	5	6	7	8	9	10
IC 702	0	0	0	0	0	5.0	5.0	5.0	5.0	5.0
IC \ PIN	11	12	13	14	15	16	17	18	19	20
IC 702	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	3.3	5.0
IC \ PIN	21	22	23	24	25	26	27	28	29	30
IC 702	0	0	0	0	5.0	5.0	0	0	0	0
IC \ PIN	31	32	33	34	35	36	37	38	39	40
IC 702	0	0	0	0	0	0	0	0	0	0

KSC945-Y (Q101, 102, 104, 204, 206, 501, 551, 701, 702, 703, 704, 705, 706, 707, 709, 710, 711, 713, 715, 730)
KSA733-Y (Q103, 502) 2SC2458-Y (Q201, 202, 203, 205) KSC1008-Y (Q708)

IC \ PIN	E	B	C	IC \ PIN	E	B	C	IC \ PIN	E	B	C	IC \ PIN	E	B	C
Q101	0	−8.0	0	Q204	0	0.5	11.8	Q702	0	0.7	0.1	QQ709	0	0.8	0.2
Q102	0	−8.0	0	Q205	1.4	2.0	12.1	Q703	0	0	1.7	Q710	0	0.7	0
Q103	15.1	15.1	−8.4	Q206	7.5	8.0	7.5	Q704	0	0	1.7	Q711	0	0	12.8
Q104	0	0	15.1	Q501	0	0	56.5	Q705	0	0	1.7	Q713	0	−0.1	5.0
Q201	7.7	8.4	12.1	Q502	57.2	57.2	−0.7	Q706	0	0	1.7	Q714	0.9	0.2	0.1
Q202	8.4	9.1	12.1	Q551	0	0	56.5	Q707	0	0	1.7	Q715			
Q203	1.4	2.0	9.1	Q701	0	0	23.0	Q708	0	0	0.1	Q730	4.0	4.6	5.0

AMP CIRCUIT

REMOCON BOX

S701 : POWER
S702 : PHONO
S703 : TUNER
S704 : CD
S705 : TV/VIDEO
S706 : VTR
S707 : TAPE
S708 : MUTE

K1 : FM
K2 : M4
K3 : M8
K4 : TU.UP
K5 : M#
K6 : M3
K7 : M7
K8 : TU.DN
K9 : LV
K10 : M2
K11 : M5
K12 : P.STOP
K13 : POWER
K14 : M1
K15 : M6
K16 : P.PLAY
K17 : MUTE
K18 : PHONO
K19 : PRG
K20 : TUNER
K21 : VOL.DN
K22 : TV
K23 : VOL.UP
K24 : TAPE
K25 : VTR
K26 : STOP
K27 : R.PLAY(A)
K28 : REC(B)
K41 : FF(A)
K42 : PAUSE(B)
K43 : REV(A)
K44 : STOP(B)
K49 : B.SKIP
K50 : REV(B)
K53 : F.SKIP
K54 : FF(B)
K61 : PLAY
K62 : F.PLAY(B)
K63 : STOP
K58 : R.PLAY(B)

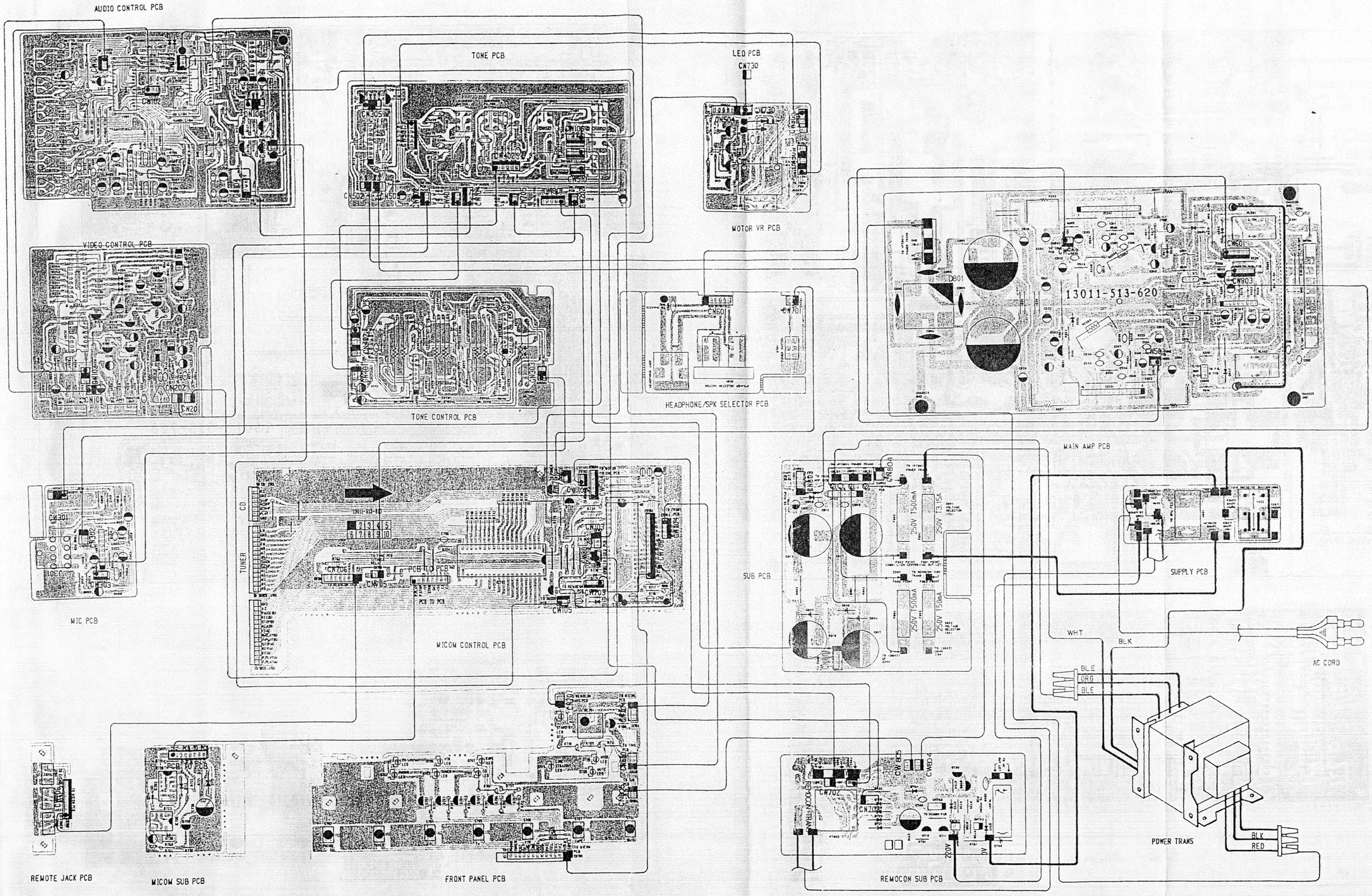
IC101 MC4558S (DUAL OP AMP)
IC102 LC4966
IC103 LC4966
IC104 MC4558S (DUAL OP AMP)
IC201 LC4966
IC202 UPA81C
IC301 MC4558S (DUAL OP AMP)
IC401 NJM2068 (DUAL OP AMP)
IC402 JRC4560 (DUAL OP AMP)
IC501 STK4044 IX
IC502 TA7317
IC551 STK4044 IX
IC701 COP440-VZF/N
IC702 M54543N
IC703 LC40018

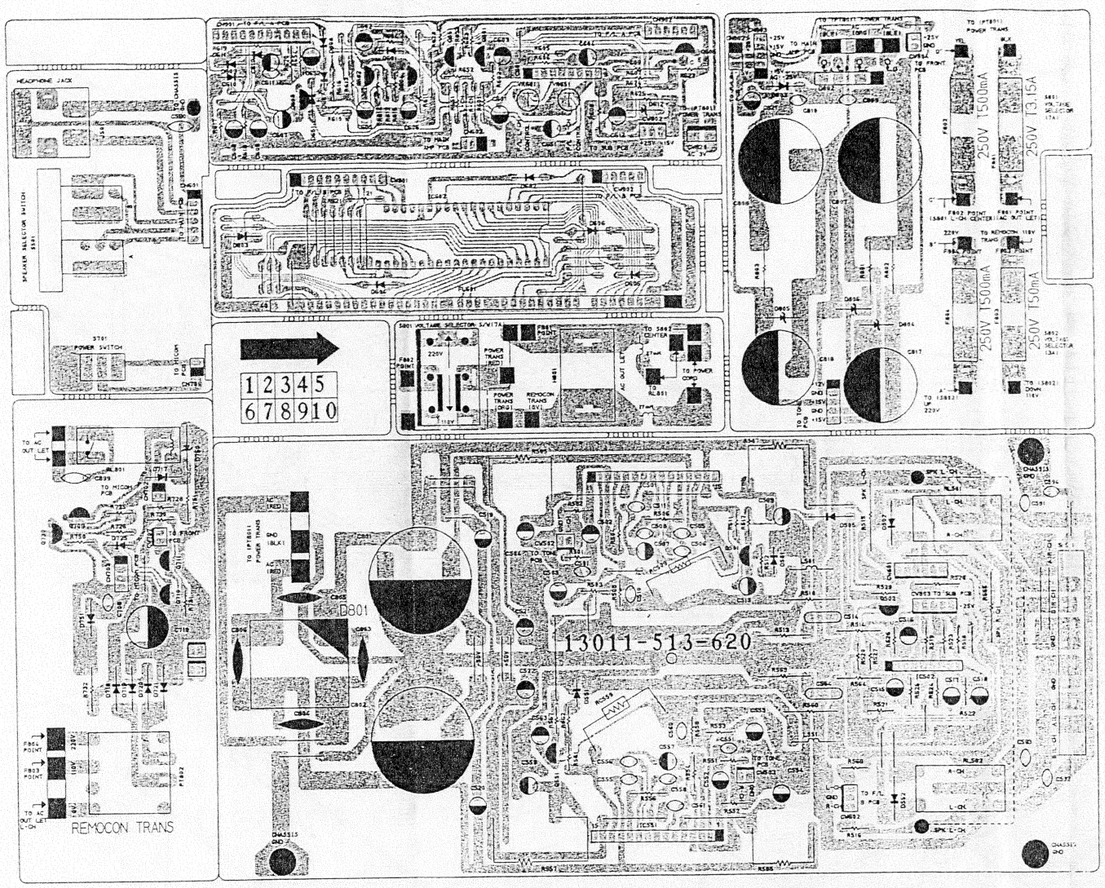
Q101 KSC945Y
Q102 KSC945Y
Q103 KSA733Y
Q104 KSC945Y
Q201 KSC945Y
Q202 KSC945Y
Q203 KSC945Y
Q204 KSC945Y
Q205 KSC945Y
Q206 KSC945Y
Q501 KSC945Y
Q502 KSA733Y
Q551 KSC945Y
Q701 KSC1008Y
Q702 KSC945Y
Q709 KSC945Y
Q710 KSC945Y
Q711 KSC945Y
Q715 KSC945Y
Q730 KSC945Y
Q751-4 2SA733X4

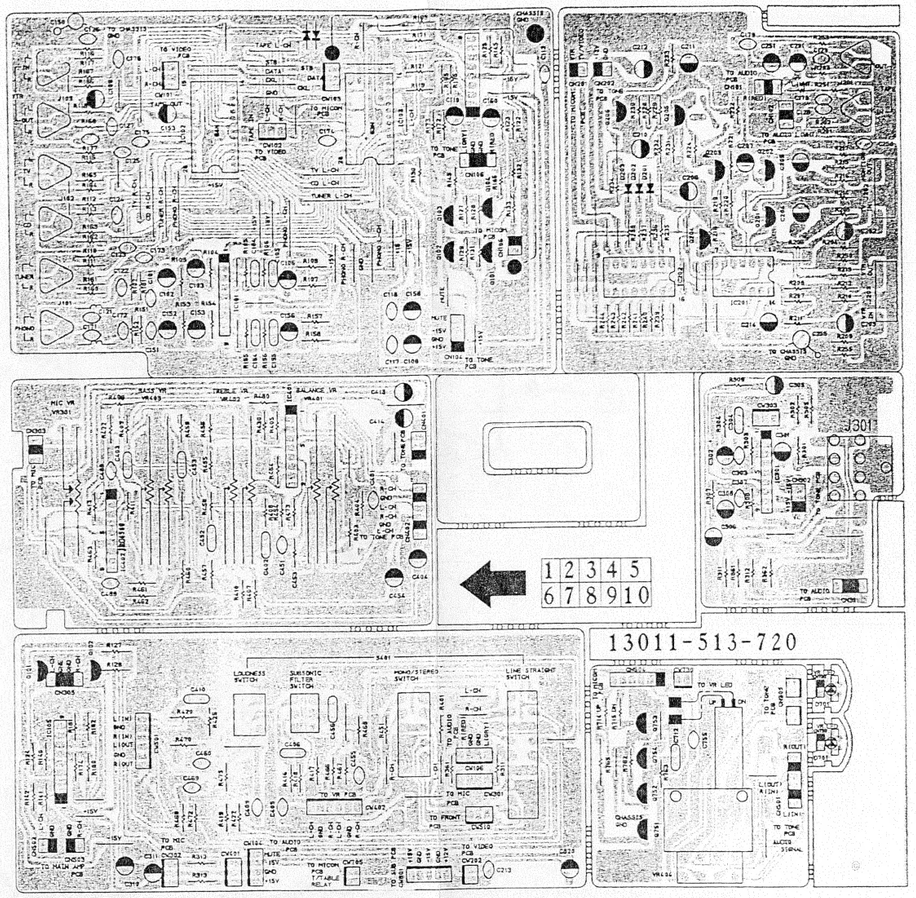
D201 D202 D203 15553 X3
D501 15553
D551 15553
D605 15553
D701 LED (P13.1RED)
D702 PHONO LED
D703 TUNER LED
D704 CD LED
D705 TV LED
D706 TVR LED
D707 TAPE LED
D711 STAND-BY LED 1SSVR3
D715 1N4001
D720 1N4001 X4
D730 15553
D731 15553
D761 RD5.6B
D801 KBPC804
D802 2KBP02
D803 1N4001 (500V)
D804 RD15B
D805 RD15B
D806 RD12B
D807 RD15B
D808 RD15B
D809 RD15B
D810 RD15B
D711 1N4001
D713 15553
D714 15553
D725 15553
D726 15553
D751 BD05B
D502 1N4001
DH-24OZ-OT-01
RL501
RL502 DH-24OZ-OT-01
RL801 DH-12OZH-01M
RL551
RL552

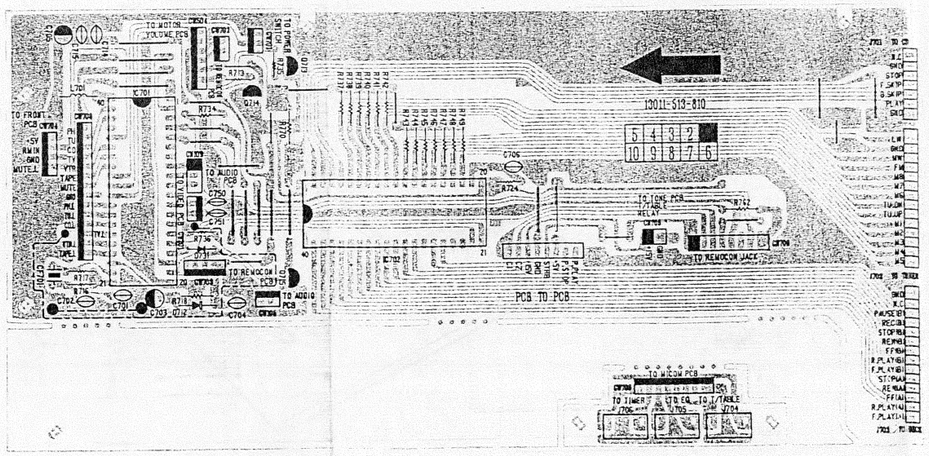
X101 CSB455E3B

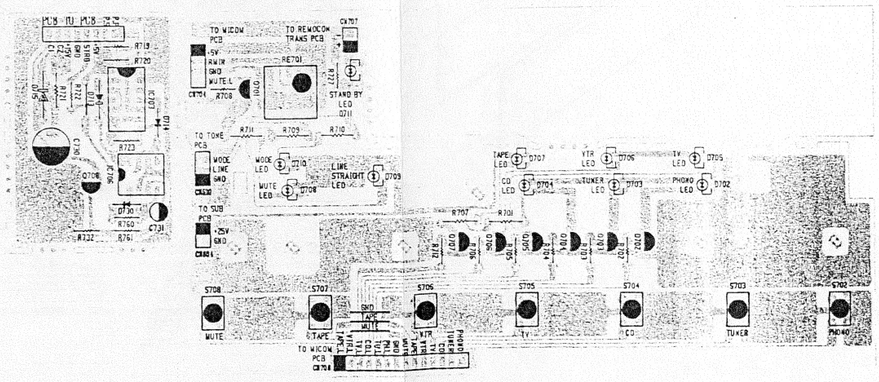
TO CHASSIS GND
TO CHASSIS
TO CD J701
TO TUNER J702
J703 TO DECK
J301 MIC JACK
PT801 POWER TRANS
PT802 REMOCON TRANS
SPEAKER SELECTOR SWITCH
J501 HEADPHONE JACK
FERRITE CORE TR-27-70
3UB FILTER SWITCH
VR404 MAIN VOLUME 150KB
VR401 TREBLE
VR402 BASS
VR403 BAL
MIC LOLUME
F801 250V T 3.15A
F802 250V 500mA
AC CORD
AC OUT
DIGITAL GND
SUB GND

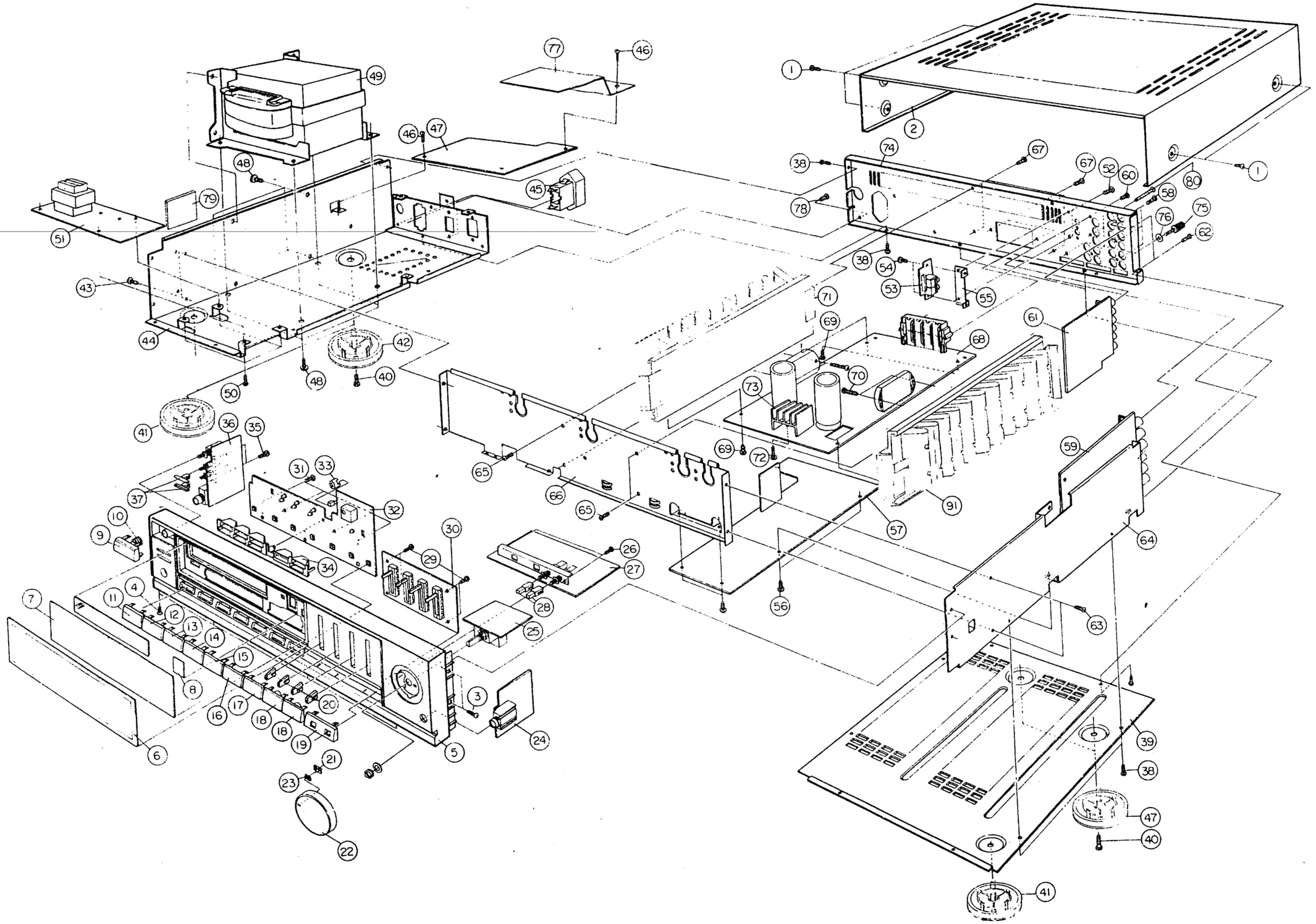

AUDIO CONTROL PCB
TONE PCB
LED PCB
CN730
MOTOR VR PCB
VIDEO CONTROL PCB
TONE CONTROL PCB
HEADPHONE/SPK SELECTOR PCB
13011-513-620
MAIN AMP PCB
SUPPLY PCB
MIC PCB
TUNER
CD
MICOM CONTROL PCB
SUB PCB
WHT
BLK
AC CORD
BLE
ORG
BLE
POWER TRANS
BLK
RED
REMOTE JACK PCB
MICOM SUB PCB
FRONT PANEL PCB
REMOCON SUB PCB
220V


13011-513-620
REMOCON TRANS


13011-513-720


13011-513-810
PCB TO PCB





ZEILE	POSITION	SYM	BEZEICHNUNG	ET-NUMMER
1			NF-VERB.KABEL 2X CINCH JE SEITE	997 609 3
2			NF-KABEL 2X3.5 KLINKENST. MONO	947 423 0
3	FB-EQ		STEUERKABEL 14-PIN	741 912 0
4	FB-TB,TUN.		STEUERKABEL,CD-7-PIN	741 913 8
5	FB-CD			
6				
7			GEHAEUSE UND BEDIENTEILE :	
8			GEHAEUSE-OBERTEIL	744 830 1
9	2		FRONT-BLENDE	744 835 0
10	5		FRONT-SCHEIBE	744 847 5
11	6		SCHEIBE MIT SCHRIFT	744 885 5
12	7		FILTER-SCHEIBE	744 848 3
13	8		KNOPF,POWER	744 846 7
14	9		FEDER	741 893 2
15	10		KNOPF,PHONO	744 837 6
16	11		KNOPF,TUNER	744 838 4
17	12		KNOPF,CD	744 839 2
18	13		KNOPF,TV-VIDEO	744 840 0
19	14		KNOPF,VTR	744 841 8
20	15		KNOPF,TAPE	744 842 6
21	16		KNOPF,MUTE	744 843 4
22	17		KNOPF,BLIND	744 845 9
23	18		KNOPF,BLIND	744 832 7
24	19		KNOPF,SCHIEBEREGLER	744 831 9
25	20		KNOPF,VOLUME	744 849 1
26	22		ZIERPLATTE,VOLUME	744 850 9
27	23		KNOPF,MODE	744 844 2
28	28		KNOPF,SPEAKER	744 836 8
29	37		FUSS,VORN	744 824 4
30	41		FUSS,HINTEN	744 825 1
31	42,47		NETZBUCHSE	741 881 7
32	45		NETZTRAFO,GROSS	744 833 5
33	49		STANDBY-NETZTRAFO,KLEIN	744 834 3
34	51			
35				
36			FERNBEDIENUNG :	
37			FERNBEDIENUNG,GEBER	744 883 0
38			BATTERIEFACHDECKEL FUER FB	744 887 1
39			IC UPD 6122 G-002	744 884 8
40	IC01		LEUCHTDIODE LN 66 R	728 075 3
41	LED1,2		LED SLP 144 B	744 886 3
42	LED3		TRANSISTOR BC 337 16	175 716 0
43	Q01		TRANSISTOR 2 SC 2021 R	950 535 5
44	Q02		KERAMIK-FILTER CSB 455E	741 884 1
45	X01			
46				
47			ELEKTRISCHE TEILE :	
48			DROSSEL 27 UH	741 873 4
49	H801		DROSSEL 2R2 UH	741 874 2
50	PH-EING.		ELKO 8200 UF/80V	744 858 2
51	C801,802		ELKO 2200 UF/25V	744 857 4
52	C807,808		ELKO 3300 UF/35V	744 856 6
53	C817,818		QUARZ 4.0 MHZ	727 532 4
54	CF701		DIODE 1 N 4148	175 540 4
55	D201-551		LED SLR 34 VR3	744 869 9
56	D701		LED SLV 31 DC3	744 868 1
57	D702-708		LED SLV 31 MC3	744 867 3
58	D710		LED SLB-55VR3 (ROT	740 351 2
59	D711		DIODE 1 N 4148	175 540 4
60	D712-714		Z-DIODE RD 4,7	921 586 4
61	D716		DIODE 1 N 4148	175 540 4
62	D725-731		ZENERDIODE RD 12 EB	921 587 2
63	D750,804		Z-DIODE RD 5,6 EB1	965 944 2
64	D761		GLEICHRICHTER KBPC 804 8A,400V	741 866 8
65	D801		GLEICHRICHTER 2 KBP2	730 984 2
66	D802		ZENERDIODE ZD 15	175 643 6
67	D805,806		IC NJM 2068 SD	740 010 4
68	IC101,401		IC TC 9164 N	744 863 2
69	IC102		IC TC 9163 N	744 862 4
70	IC103		IC NJM 2068 SD	740 010 4
71	IC104,105		IC LC 4966	741 864 3
72	IC201		IC UPA 81 C	744 864 0
73	IC202		IC NJM 4560 S	730 458 7
74	IC402		IC STK 4044 XI	744 865 7
75	IC501,551		IC TA 7317 P	949 ~~1~~02 0
76	IC502		IC COP 440-WZF/N	744 859 0
77	IC701		IC MM 5451-N	744 861 6
78	IC702		IC LC 4001 B	730 335 7
79	IC703		IC BA 6209	989 543 4
80	IC705		IC LC 4969	744 860 8
81	IC706		CINCHBUCHSE 4-POL	741 880 9
82	J101-201			

ZEILE	POSITION	SYM	BEZEICHNUNG	ET-NUMMER
83	J202,203		CINCHBUCHSE 2-POL	744 875 6
84	J301,MIC		KLINKENBUCHSE 6.3 MM STEREO	744 873 1
85	J501,KH		KLINKENBUCHSE 6.3 MM STEREO	744 874 9
86	J701		ANSCHLUSSBUCHSE 7-PIN	741 871 8
87	J702,703		ANSCHLUSSBUCHSE 14-PIN	741 911 2
88	J704,705		KLINKENBUCHSE	744 872 3
89	L501,551		DROSSEL 0.82 UH	744 870 7
90	L701		SPULE 470 UH	741 989 8
91	PT801		NETZTRAFO,GROSS	744 833 5
92	PT802		STANDBY-NETZTRAFO,KLEIN	744 834 3
93	Q101,102,4		TRANSISTOR 2 SC 945	175 739 2
94	Q103,502		TRANSISTOR 2 SA 733 P	275 032 1
95	Q201-203		TRANSISTOR 2 SC 3199 (GR)	989 833 9
96	Q204,206		TRANSISTOR 2 SC 945	175 739 2
97	Q205		TRANSISTOR 2 SC 3199 (GR)	989 833 9
98	Q501,551		TRANSISTOR 2 SC 945	175 739 2
99	Q701-707		TRANSISTOR 2 SC 945	175 739 2
100	Q708		TRANSISTOR KSC 1008	744 882 2
101	Q709-711		TRANSISTOR 2 SC 945	175 739 2
102	Q714		TRANSISTOR 2 SA 733 P	275 032 1
103	Q715,730		TRANSISTOR 2 SC 945	175 739 2
104	Q751-754		TRANSISTOR 2 SC 945	175 739 2
105	RC509,559		WIDERSTAND 0.22 OHM 7 WATT	744 851 7
106	RE701		JR-EMPFAENGER	744 866 5
107	RL501,502		RELEY DE24D2	744 881 4
108	RL801		RELEY DH12D1	744 880 6
109	S401,MODE		DRUCKSCHALTER	744 878 0
110	S501,SPEAK		DRUCKSCHALTER	744 877 2
111	S701,POWER		TASTSCHALTER	744 876 4
112	S702-708		TASTSCHALTER	744 879 8
113	SP501		LAUTSPRECHERBUCHSENLEISTE	744 871 5
114	VR301,MIC		SCHIEBEREGLER 100KB	744 855 8
115	VR401,BAL		SCHIEBEREGLER 100KMN	744 853 3
116	VR402,403		SCHIEBEREGLER 2X20KB	744 854 1
117	VR404,LAUT		DREPOTI 2X150KB MIT MOTOR	744 852 5

ENDE